**M S RAMAIAH INSTITUTE OF TECHNOLOGY**

(Autonomous Institute, affiliated to VTU)

**DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING**

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| **Term:** | 23rd Jan 2017 to 13th may 2017 | **Course Code:** | IS62C5 |
| **Course:** | Computer Graphics | **Semester:** | VI – A, B & C |
| **CIE:** | Test – II | **Max Marks:** | 30 |
| **Date:** | 5th April , 2017 | **Time:** | 9:30 – 10:30 |

**Portions for Test:** Lecture Nos. from 19 to 40 as per lesson plan. **Instructions to Candidates:**

Answer any **TWO** full questions. **Note:** Mobiles and Programmable Calculators are strictly prohibited.

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| **Sl. #** | **Question** | **Marks** | **Bloom’s Level #** | **COs** |
| 1 a) | Reflect the diamond shaped polygon whose vertices are A(-1,0), B(0,-2), & C(0,2) about y=x+2 | 10 | Az | CO2 |
| 1 b) | What is window to viewport Transformation; explain with the help of example. | 5 | AP | CO3 |
| 2 a) | With the help of Cohen Sutherland 4 bit code, design a line clipping algorithm. | 10 | C | CO2 |
| 2 b) | Write the Martix representations for Translation, Rotation & scaling in 3D | 5 | R | CO3 |
| 3 a) | Derive the mathematical formulation required to scale an object in space wrt arbitrary axis. | 8 | AP | CO3 |
| 3 b) | Distinguish between convex & non convex polygon, discuss the odd and even rule basis polygon filling technique using appropriate data structures. | 7 | U | CO2 |

# R= Remember, U=Understand, AP=Apply, C=Create, Az= Analysis